KOGAN, Vladimir Il'ich; GALITSKIY, Viktor Mikhaylovich; ZHABOTINSKIY, Ye.Ye., redaktor; TUMARKINA, N.A., tekhnicheskiy redaktor

[Collection of problems on quantum mechanics] Sbornik zadach po kvantovoi mekhanike. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 415 p. (MLRA 10:4)

(Quantum theory--Problems, exercises, etc.)

GALITSKIY, V. M. and MIGDAL, A. B.

"Dielectric Constant of a High Temperature Magnetized Plasma and the Evaluation of the Radiant Heat Conductivity." (Work - 1951); pp. 161-171.]

"The Physics of Plasmas; Problems of Controlled Thermonuclear Reactions." Vol. I. 1958, published by INs.t. Atomic Energy, Acad. Sci. USSR.
resp. ed. M. A. Leontovich, editorial work V. I. Kogan.

Available in Library.

AUTHORS: Galitskiy, V. M., Migdal, A. B. 56-1-22/56

TITLE: An Application of Quantum Field Theory Methods to the Many--Body Problem (Primeneniye metodov kvantovoy teorii polya k zadache mnogikh tel).

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1958, Vol. 34, Nr 1, pp. 139-150 (USSR).

ABSTRACT: In the present paper shows, that the energy and the damping of the quasi-particles depends on the poles of the dissipation function of a particle. The author here investigates a homogeneous unbounded system, wherein the momentum operator commutes with the Hamiltonian. In all Fermi-systems there obviously exist excitations analoguous to those in an ideal Fermi gas. It is convenient to study the properties of the excitations by means of the methods of the quantum theory of fields, by introducing the kernels of the system into the investigations. Apart from the kernels of the particles it is also possible to introduce the functions of the dissipation of the interaction between the particles, e.g. the kernel of the phonon represents this dissipation function in the problem of electrons in a metal being in interaction with the lattice.

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An Application of Quantum Field Theory Methods to the Many--Body Problem. 56-1-22/56

The kernel of the phonon determines the energy and the damping of the excitations of the lattice. At first the kernel $G(p\varepsilon)$ is written down for one particle, and then the author passes over to a Fourier representation. Subsequently, the properties of the kernel in the complex plane are investigated, and the interrelation of the kernel of one particle with the spectrum of the excitations is determined. The behaviour of the kernel at great positive times is also studied. The energy and the damping of the excitations are determined in the lower half plane by means of the real and imaginary part of the poles of the analytical propagation of $G(p\varepsilon)$. The kernel for one particle also permits the determination of other charachteristics of the system, e.g. the distribution of the particles on the different momenta. For the purpose of studying the energy spectrum and the behaviour of the system in weak external fields, it is necessary to investigate the kernel for two particles. This kernel for two particles is written down here explicitly, it is suited, for example, for studying the excited states of a system of N particles containing one particle and one hole. The case of forces of short range and the behaviour of a system in an

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An Application of Quantum Field Theory Methods to the Many--Body Problem. 56-1-22/56

arbitrary weak electromagnetic field are investigated. There are 3 figures and 8 references, 5 of which are Slavic.

ASSOCIATION: Moscow Engineering and Physical Institute (Moskovskiy inzhenerno-fizicheskiy institut).

SUBMITTED: July 12, 1957 (initially) and October 24, 1957 (after revision).

AVAILABLE: Library of Congress

Card 3/3

GALITSKIY V M

AUTHOR: Galitskiy, V. M. 56-1-23/56

TITLE: The Energy Spectrum of a Nonideal Fermi Gas (Energeticheskiy spektr neideal'nogo Fermi-gaza).

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1958, Vol. 34, Nr 1, pp. 151-162 (USSR).

ABSTRACT: The present paper determines the energy spectrum and the energy of the ground state of a nonideal Fermi gas with a positive potential of interaction between the particles. At first the one-particle Green function of the system is written down. A formula is also given for the S-matrix. In the development of the S-matrix according to the powers of the interaction U the mean values of the T-product of the ψ-operators occur. These T-products can be represented in the form of a sum of the normal products and the different groups of operators. Very important for the further is the absence of a retardation in the interaction. The second section gives an evaluation of the graphs and discusses the gas approximation. Then the effective potential of the interaction , the energy spectrum of the system, and the energy of the ground state are calculated, where the course of the calculation is followed step by step.

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The Energy Spectrum of a Nonideal Fermi Gas.

56-1-23/56

First an expression for the compact part of the self-energy Σ is written down. Then the self-energy is calculated in second approximation. The energy-spectrum of the system is determined by the poles of the analytic continuation of the Green function. Expressions for the energy and the attenuation of the quasiparticles are written down. Especially the excitations with high momenta are investigated. The expression found here for the imaginary part $\mathrm{Im}\,\Sigma$ makes possible the determination of the chemical potential only in first approximation. The occupation numbers of the quasiparticles agree with the occupation numbers of the non-interacting particles. Finally the graphs which were left out are estimated and the higher approximation is shortly discussed. There are 6 figures, and 7 references, 5 of which are Slavic.

ASSOCIATION: Moscow Engineering and Physical Institute (Moskovskiy inzhenerno-fizicheskiy institut).

SUBMITTED: July 12, 1957

AVAILABLE: Library of Congress

Card 2/2

AUTHOR: Galitskiy, V. M. 56-34-4-40/60

TITLE: Sound Excitations in Fermi Systems (Zvukovyye vozbuzhdeniya v Fermi-sistemakh)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol. 34, Nr 4, pp. 1011 - 1013 (USSR)

ABSTRACT: First the author gives a short report on references dealing with the same subject. In Fermi systems with attraction sound excitations with small momenta are possible. These excitations are best investigated by the method of the Green function. The second excitations can be regarded as bound states of two elementary excitations with a total momentum different from zero. Therefore a method proposed by Gell-Mann and F. Low (Lou) can be used for calculations. According to this method the equation for the bound states is obtained by elimination of the inhomogeneity in the equation for the Green function of the two excitations. In order to take into account the structural change caused by the production of the Bose condensate of the bound pairs the original Hamiltonian with a direct interaction among particles must be transformed

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Sound Excitations in Fermi Systems 56-34-4-40/60

by using a method developed by Bogolyubov (Ref 4). $H=E_0+H_0+H'$, $H_0=\sum_{\vec{p}}\varepsilon(p)(\alpha^+_{p\sigma}\alpha_{p\sigma}+\alpha^+_{p\bar{\sigma}}\alpha_{p\bar{\sigma}})$; $\varepsilon(p)=(1/2)\sqrt{\Delta^2+(p^2-p_0^2)^2}$ is then obtained, where p_0 denotes the Fermi limit momentum, $\Delta=\bar{\omega}e^{-1/\varrho}$ the quantity of the energy slit, and H' the Hamiltonian of the interaction among excitations. In this case the zero-th approximation of the Green function can be regarded as sufficient. The interaction Hamiltonian H' in first approximation contains only one graph for the interaction between the excitations. The system of equations for the Green functions resulting from the elimination of the inhomogeneity is written down explicitly and the result obtained can also be applied to a system of charged particles. The author thanks B. T. Geylikman, L. D. Landau, A. B. Migdal and I. Ya. Pomernachuk for their valuable advice and interesting discussions. There are 1 figure and 9 references, 7 of which are Soviet.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Institute of Physics and Engineering)

Card 2/3

GALITSKII, V. M.

"Collective Excitations in Fermi Systems at Zero Temperatures."

report presented at the Intl. Conference on Many-Body Problems, Utrecht, 13-18 June 1960.

GALITSKIY, V.M.

Pairing with other than zero moments. Zhur. eksp. i teor. fiz. 39 no.4:1157-1159 O '60. (MIRA 13:11)

1. Moskovskiy inzhenerno-fizicheskiy institut.
(Particles (Nuclear physics))

GOR'KOV, L.P.; GALITSKIY, V.M.

Superfluidity in a Fermi system in the presence of pairs with nonzero angular momentum. Zhur. eksp. i teor. fiz. 40 no.4:1124-1127 Ap '61. (MIRA 14:7)

1. Institut fizicheskikh problem AN SSSR.
(Superfluidity) (Fermi surfaces)

26717
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B102/B138

24.2140

AUTHORS: Vaks, V. G., Galitskiy, V. M., Larkin, A. I.

TITLE: Collective excitations in a superconductor

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41, no. 5(11), 1961, 1655 - 1668

TEXT: Quantum-field theory methods are applied to determine the spectrum of collective excitations in a superconductor. The collective excitations are investigated by means of the Green functions for zero temperatures. The excitations are treated as bound states of quasiparticles so that their spectrum can be determined from the pole of the two-particle Green function. The calculation of this function is based on the formal similarity of the problem to a one-dimensional relativistic one; The gap width plays the role of the mass and the proximity of the particle energy to that on the Fermi surface - that of the spatial momentum. For long-wave excitations the limiting frequencies and the dispersion of the oscillations are determined for any momentum l. First the relativistic formalism is developed for the theory of superconductivity using P. L. Gor'kov's

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Collective excitations in...

three types of Green functions (ZhETF, 34, 735, 1958). The real phase constant Δ is given by $\Delta = -i\int D(p-p')\frac{\Delta}{p'^2+\Delta^2}d^4p'$; $1 = -ig_0\int\frac{d^2p}{p^2+\Lambda^2}$; $g_0 = \varrho\int D(\vec{n}\vec{n}')d\vec{n}'/4\pi$, $D(p-p') = D(\vec{n}\vec{n}')$, $\vec{n} = \vec{p}/p$, $\vec{n}' = \vec{p}'/p'$; D is the phonon Green function. The Bethe-Salpeter equation for the two-particle Green functions whose poles determine the excitation spectrum is written in weak coupling approximation.

$$K_{\mu\nu} = \frac{i}{2}\left[\left(G\left(p+\frac{k}{2}\right)\gamma_3\right)_{\mu\rho}\left(\gamma_3 G\left(p-\frac{k}{2}\right)\right)_{\sigma\nu} + \left(CG\left(-p+\frac{k}{2}\right)\gamma_3\right)_{\nu\rho}\left(\gamma_3 G\left(-p-\frac{k}{2}\right)\right)_{\sigma\mu}\right] \times \int d^4p'\left[D(p-p')K_{\rho\sigma}(p',k) - \frac{1}{2}D(k)\gamma^3_{\rho\sigma}\,\mathrm{Sp}\,\gamma^3 K(p',k)\right], \quad (25)$$

with

$$\gamma_3 = \begin{pmatrix} 0 & i \\ -i & 0 \end{pmatrix}, \quad \gamma_4 = \begin{pmatrix} 0 & 1 \\ 1 & 0 \end{pmatrix}, \quad \gamma_5 = \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix}, \quad \gamma_1 = \begin{pmatrix} 1 & 0 \\ 0 & 1 \end{pmatrix}, \quad C = \begin{pmatrix} \sigma_y & 0 \\ 0 & -\sigma_y \end{pmatrix} \quad (6)$$

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Collective excitations in...

is found which can be solved only for certain relations between the energies $k_0 = \omega$ and the momentum k of the excitation determining the spectrum $\omega(k)$. First the case k = 0 is treated. Here the general formulas

$$K^5_{lm} = \sum_{l_1} g_{l_1} \left[(L + \beta^2 f)_{ll_1m} K^5_{l_1m} + \frac{q_4}{2\Delta} f_{ll_1m} K^3_{l_1m} + \frac{1}{2\Delta} (q_3 f)_{ll_1m} K^1_{l_1m} \right] -$$

$$- 2\delta_{m0} \rho D(k) \frac{q_4}{2\Delta} f_{l00} K^3_{00},$$

$$K^3_{lm} = \sum_{l_1} g_{l_1} \left[\frac{q_4}{2\Delta} f_{ll_1m} K^5_{l_1m} - \left(f + \frac{q_3^2 - q_3^2 f}{q^2} \right)_{ll_1m} K^3_{l_1m} + q_4 \left(\frac{q_3 - q_3 f}{q^2} \right)_{ll_1m} K^1_{l_1m} \right] +$$

$$+ 2\delta_{m0} \rho D(k) \left(f + \frac{q_3^2 - q_3^2 f}{q^2} \right)_{l00} K^3_{00}, \qquad (30)$$

$$K^1_{lm} = \sum_{l_1} g_{l_1} \left[-\frac{1}{2\Delta} (q_3 f)_{ll_1m} K^5_{l_1m} - q_4 \left(\frac{q_3 - q_3 f}{q^2} \right)_{ll_1m} K^3_{l_1m} - \left(\frac{q_3^2 - q_3^2 f}{q^2} \right)_{ll_1m} K^1_{l_1m} \right] +$$

$$+ 2\delta_{m0} \rho D(k) q_4 \left(\frac{q_3 - q_3 f}{q^2} \right)_{l00} K^3_{00}.$$

$$K^1_{lm} = \sum_{l_1} g_{l_1} (L - f + \beta^2 f)_{ll_1m} K^1_{l_1m}.$$

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Collective excitations in...

with $q_3 = knv, \quad q_4 = i\omega, \quad q^2 = q_3^2 + q_4^2, \quad \beta^2 = -q^2/4\Delta^2, \quad f(\beta) = \frac{\arcsin\beta}{\beta\sqrt{1-\beta^2}}$. (31)

change into

$$g_0 \frac{\omega^2}{4\Delta^2} f K_{00}^5 + \frac{i\omega}{2\Delta} f (g_0 - 2\rho D(\omega, 0)) K_{00}^3 = 0, \quad (32)$$

$$g_0 \frac{i\omega}{2\Delta} f K_{00}^5 - (1 + g_0 f - 2 f \rho D(\omega, 0)) K_{00}^3 = 0.$$

and for frequencies with $l \neq 0$ into

$$K_{lm}^5 = g_l \left(L + \frac{\omega^2}{4\Delta^2} f\right) K_{lm}^5 + g_l \frac{i\omega}{2\Delta} f K_{lm}^3, \quad (33).$$

$$K_{lm}^3 = g_l \frac{i\omega}{2\Delta} f K_{lm}^5 - g_l f K_{lm}^3 .$$

For $g_1^2(g_2 - g_1)^{-1} \ll 1$ the value of ω approaches 2Δ and $f(\omega/2\Delta) \approx \frac{1}{2}\pi(1-\omega^2/4\Delta^2)^{-\frac{1}{2}}$ from which $\omega_1^2(0) = 4\Delta^2(1-\alpha_1^2)$ follows $\alpha_i = \frac{1}{2}\pi g_1^2(g_0 - g_1)^{-1}$. In the case of $l = 0$ (sonic oscillations)

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$$\frac{\pi\Delta}{2vk}\ln\frac{4\Delta^2}{4\Delta^2-\omega^2}-\left(\ln\frac{kv}{\Delta}-1\right)=0, \qquad (40)$$

$$2\Delta-\omega=\Delta\exp\left(-\frac{2kv}{\pi\Delta}\ln\frac{kv}{\Delta e}\right). \qquad (41)$$

is found for neutral particles. (30) changes into

$$K^5_{00}=(1+g_0\beta^2 f)_{00}K^5_{00}+\frac{i\omega}{2\Delta}f_{00}(g_0-2pD(k))K^3_{00}, \qquad (42)$$

$$K^3_{00}=g_0\frac{i\omega}{2\Delta}f_{00}K^5_{00}+(2pD(k)-g_0)\left(f-\frac{(kn\upsilon)^2(1-f)}{\omega^2-(kn\upsilon)^2}\right)_{00}K^3_{00}.$$

which holds for an electron gas. For charged particles the dispersion of plasma oscillations is only weakly affected by superconductivity. For excitations with small k ($l\neq 0$, $kv\ll\alpha_1\Delta$) the system (30) can be solved as a system of independent equations. Since $\omega\approx 2\Delta$,

$$K^5_{lm}=g_l(1+f_{llm})K^5_{lm}+ig_lf_{llm}K^3_{lm},\quad K^3_{lm}=ig_lf_{llm}K^5_{lm}-g_lf_{llm}K^3_{lm} \qquad (45)$$

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Collective excitations in...

is found and $\omega_{lm}^2(k) = 4\Delta^2(1-a_l^2) + \frac{1}{3}k^2v^2(1 + 2C_{2o}^{lo}, {}_{lo}C_{2o,lm}^{lm})$, where C are Clebsch-Gordan coefficients. For large l, $\omega_{lm}^2(k) = \omega_l^2(0) + \frac{k^2v^2}{2}(1-m^2l^2)$ holds. For large k, instead of (30),

$$K_{10}^5 = g_1(L+f_{110})K_{10}^5 + if_{110}K_{10}^3, \quad K_{10}^3 = ig_1f_{110}K_{10}^5 - f_{110}K_{10}^3. \qquad (49)$$

is valid. The edge of the spectrum is defined by $\omega(k_{max}) = 2\Delta$ and $k_{max} = 3a_1\Delta/v$. Near k_{max}

$$(4\Delta^2-\omega^2)\ln\frac{4\Delta^2}{4\Delta^2-\omega^2} - \frac{v^2}{2}(k_{max}^2-k^2) = 0. \qquad (52)$$

holds, from which it may be seen that $\omega = 2\Delta$ is a tangent to the curve $\omega(k)$. For every $m \neq 0$ there will be one excitation branch which is not terminated even for large k. Eq. (30) can be substituted by

$$K_{lm}^5 = g_0LK_{lm}^5 + \frac{2\pi\Delta}{kv}P_{lm}(0)\ln\frac{\tilde{kv}}{\sqrt{4\Delta^2-\omega^2}}\sum_{l_1}g_{l_1}P_{l_1m}(0)(K_{l_1m}^5 + iK_{l_1m}^3),$$

$$K_{lm}^3 = i\frac{2\pi\Delta}{kv}P_{lm}(0)\ln\frac{\tilde{kv}}{\sqrt{4\Delta^2-\omega^2}}\sum_{l_1}g_{l_1}P_{l_1m}(0)(K_{l_1m}^5 + iK_{l_1m}^3). \qquad (53)$$

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Collective excitations in...

and

$$1 = \frac{4\Delta}{kv} \ln \frac{\widetilde{kv}}{\sqrt{4\Delta^2 - \omega^2}} \sum_l \alpha_l P_{lm}^2(0), \tag{56}$$

$$4\Delta^2 - \omega^2 = \min\{k^2v^2, 4\Delta^2\} \cdot \exp\left[-\frac{kv}{2\Delta}\left(\sum_l \alpha_l P_{lm}^2(0)\right)^{-1}\right]. \tag{57}$$

hold. For $m = 0$ and $\alpha_1\Delta \ll kv \ll \Delta$

$$K_{l0}^s = g_l L K_{l0}^s + \frac{2\pi\Delta}{kv} P_{l0}(0) \ln \frac{kv}{\sqrt{4\Delta^2 - \omega^2}} \left[\sum_{l_1} g_{l_1} P_{l_1 0}(0)(K_{l_1 0}^s + iK_{l_1 0}^3) - 2ipD(k) K_{00}^3\right],$$

$$K_{l0}^3 = \frac{2\pi\Delta}{kv} P_{l0}(0) \ln \frac{kv}{\sqrt{4\Delta^2 - \omega^2}} \left[\sum_{l_1} g_{l_1} P_{l_1 0}(0)(K_{l_1 0}^s + iK_{l_1 0}^3) - 2ipD(k) K_{00}^3\right]. \tag{59}$$

is found. In this case no solution exists with an ω near 2Δ. All branches of excitations with $m = 0$ and $l \neq 0$ for small k near 2Δ terminate at $kv \sim \alpha_1\Delta$. All results hold for an isotropic model of a metal. The authors thank A. B. Migdal, S. T. Belyayev and L. P. Gor'kov for discussions.

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B102/B138

Collective excitations in...

There are 2 figures and 19 references: 11 Soviet and 8 non-Soviet. The four most recent references to English-language publications read as follows: A. Bardasis, J. R. Schrieffer. Phys. Rev., 121, 1050, 1961; P. Anderson. Phys. Rev., 112, 1900, 1959; P. Anderson, P. Morel. Phys. Rev. Lett., 5, 136, 1960; J. Bardeen et al. Phys. Rev. 108, 1175, 1957.

SUBMITTED: June 15, 1961

Card 8/8

S/056/62/042/005/028/050
B102/B104

24 2140

AUTHORS: Vaks, V. G., Galitskiy, V. M., Larkin, A. I.

TITLE: Collective excitations of particles with non-zero angular momentum pairing

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 5, 1962, 1319-1325

TEXT: In this contribution to the theory of superconductivity, systems are examined in which the attraction in a state with $l_0 \neq 0$ is dominant, as in the case of He^3 where the attraction in the D state is dominant (L. P. Pitayevskiy, ZhETF, 37, 1794, 1959). As well as those from single particles, collective excitations in such systems are examined. The shape of the excitation spectrum is important for explaining of superfluidity properties as well as for stability investigations. The equation for the gap Δ in the energy spectrum admits of general solutions only in the case of zero angular momentum pairing (two solutions: $\Delta = 0$, and $\Delta \neq 0$). Where non-zero moments are paired, special solutions must be sought. Collective excitations are examined here by a relativity technique as

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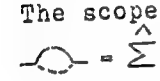
Collective excitations of ...

developed in a preparatory work (Vaks et al. ZhETF, 41, 1655, 1961). The system, which is assumed to be composed of fermions, coexists with sonic excitation and other excitations causing no gap in the energy spectrum. The scope is restricted to a graph of the first order

 $= \hat{\Sigma} = \Delta_1 + i\Delta_2\gamma_5$; $(\Delta_1 = \mathrm{Re}\,\Delta, \Delta_2 = \mathrm{Im}\,\Delta)$. The fermion Green function $G(p) = 1/(i\hat{p} + \hat{\Sigma})$ becomes

$$G = \frac{1}{i\hat{p} + \Delta_1 + i\Delta_2\gamma_5} = \frac{-i\hat{p} + \Delta_1 - i\Delta_2\gamma_5}{p^2 + |\Delta|^2} \qquad (8).$$

for $\Delta_{1,2}$

$$\Delta_{1,2} = \rho \int D(nn') \frac{\Delta_{1,2}(n')}{p^2 + |\Delta(n')|^2} \frac{dn'}{4\pi} d^3p. \qquad (9)$$

is found and since $\Delta(p) = (\vec{n})$ is

$$\Delta(n) = \frac{1}{2}\rho \int D(nn') \ln \frac{\Lambda^2}{|\Delta(n')|^2} \Delta(n') \frac{dn'}{4\pi}, \qquad (10),$$

the energy width of the interaction range (10) can be inserted into a system of algebraic equations

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Collective excitations of ...

$$\Delta^{lm} = g_l \sum_{l'm'} L^{lm}_{l'm'} \Delta^{l'm'}; \qquad (13)$$

$$L^{lm}_{l'm'} = \int_\Omega dn Y^*_{lm}(n) \ln \frac{\Lambda}{|\Delta(n)|} Y_{l'm'}(n). \qquad (14).$$

The components with $l \neq l_0$ supply only a small correction having the order of magnitude $g_1^2 \Delta l_0 (g_{l_0} - g_l)^{-1}$ so that the first approximation can be totalled only in terms of m, giving $\Delta^{l_0 m} = \Delta^{l_0 l_0}(1 - m^2/l_0^2)^{1/2}$. Most characteristics of collective excitations can be made recognizable without $\Delta(\vec{n})$. For two-particle excitations the Bethe-Salpeter equation can be given the form

$$\Gamma_\alpha(n, k) = \rho \int D(nn') \Pi_{\alpha\beta}(n'k) \Gamma_\beta(n', k) \frac{dn'}{4\pi}, \qquad (20);$$

$$\Pi_{\alpha\beta} = \frac{i}{4} \int d^4p \, \mathrm{Sp}\, \gamma_\beta G\left(p' - \frac{q}{2}\right) \gamma_3 \gamma_\alpha \gamma_3 G\left(p' + \frac{q}{2}\right).$$

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wherein $\Gamma_+ = \Gamma_1 + \Gamma_5$; $\Gamma_- = \Gamma_1 - \Gamma_5$; $\gamma_\pm = \gamma_1 \pm \gamma_5$; α and β stand for + or -. If energy and moment are zero ($\omega = k = 0$) the equation for the change of the self-energy part of $\hat{\Sigma}$ coincides with the solution above mentioned: $\Gamma_\pm = \frac{1}{4} \mathrm{Sp}\,(1 \pm \gamma_5)\hat{\Sigma}'(n)$. As an example the case of the scalar pairing is examined when $D(\vec{n}\,\vec{n}')$ is independent of angle. Δ is assumed to be real so that $\Sigma' = \Delta i\alpha\gamma_5$, ($\gamma_5 = \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix}$) and the given equation is valid when $\Gamma_+ = -\Gamma_-$. With gradient transformation $\hat{\Sigma} \to \hat{\Sigma} + i\alpha\gamma_5\hat{\Sigma}$ we have $\Gamma_+ = \Gamma^* = i\alpha\Delta$. The excitation spectrum with small k is obtained from the condition under which the following equation can be solved:

$$\sum_m \int dn \frac{\omega^2 - (vkn)^2}{|\Delta|^2}\left(2\Gamma_+^{*n}\Gamma_+^m + 2\Gamma_+^n\Gamma_+^{*m} - \frac{\Delta^*}{|\Delta|^2}\Gamma_+^n\Gamma_+^m - \frac{\Delta^2}{|\Delta|^2}\Gamma_+^{*n}\Gamma_+^{*m}\right)c_m = 0. \qquad (29)$$

wherein ω is a linear function of k. A sonic branch always exists, the hydrodynamic velocity of the sound waves being $v/\sqrt{3}$. The velocity of other excitations depends on the direction of k and can be expressed in terms of Δ of the single particle excitation spectrum. As an example, the case examined by Anderson and Morel (Phys. Rev. 123, 1911, 1961) is

taken, in which $\Delta(n) = \Delta_{22}Y_{22}(n)$. It can be shown that the solution with $\Delta \sim Y_{22}$ is unstable.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering Physics Institute)

SUBMITTED: December 14, 1961

Card 5/5

GALITSKIY, V M.

Dissertation defended for the degree of Doctor of Physicomathematical Sciences at the Mathematical Institute imeni V.A. Steklova 1962:

"Application of the Method of Green Functions to Fermi-systems."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

GALITSKIY, V. M.

A. I. Alekseyev, Yu. A. Vdovin, and V. M. Galitskiy, "Collective Radiation of Impurity Atoms in Crystals."

report submitted for the Conference on Solid State Theory, held in Moscow, December 2-12, 1963, sponsored by the Soviet Academy of Sciences.

ACCESSION NR: AT3012799 S/2964/63/000/000/0003/0064

AUTHOR: Galitskiy, V. M.

TITLE: Single-particle spectrum of non-ideal Fermi gas

SOURCE: Primeneniye metodov kvantovoy teorii polya k zadacham mnogikh tel. Moscow, 1963, 3-64

TOPIC TAGS: Fermi gas, fermion, single particle spectrum, non ideal Fermi gas, Green's function, single particle Green's function, quasiparticle damping, Lehmann expansion, S matrix, gas approximation, Coulomb interaction

ABSTRACT: A homogeneous unbounded system is considered, in which the momentum operator commutes with the Hamiltonian, so that the excited states and the other parameters are characterized by the momentum of the system. The properties of the excitations are considered by introducing the Green's functions of the system. The

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ACCESSION NR: AT3012799

general properties of the single-particle Green's functions and their connection with the system parameters are considered, and it is shown that the single-particle Green's function yields the mean value of the occupation numbers of the particle, the chemical potential, and the energy of the ground state of the system. The poles of the analytic continuation of the Green's function determine the single-particle spectrum and the damping of the quasiparticle. Single-particle Green's functions are calculated for fermion systems with different interactions. The single-particle spectrum, the damping of the quasiparticles, and the characteristics of the ground state of the system are determined from the derived formula. The section headings are: 1. Determination of the Green's function. The Lehmann expansion. 2. Analytic properties of the Green's function. 3. Connection between the Green's function and the system parameters. 4. The S-matrix. The diagram method. 5. Single particle spectrum of non-ideal Fermi gas. 6. Perturbation theory. 7. Gas approximation. 8. Coulomb interaction. Appendix. Orig. art. has: 23 figures, 190 formulas.

Card 2/3 2

ACCESSION NR: AP4012560 S/0056/64/046/001/0320/0330

AUTHORS: Alekseyev, A. I.; Vdovin, Yu. A.; Galitskiy, V. M.

TITLE: Oscillations of photon density in a resonant medium

SOURCE: Zhurnal eksper. i teoret. fiz., v. 46, no. 1, 1964, 320-330

TOPIC TAGS: photon density, photon density oscillation, resonant medium, two level molecule, resonant emission, resonant absorption, stimulated collective emission, laser, ruby laser

ABSTRACT: Quantum electrodynamics is used to investigate the evolution of resonant emission and absorption and the oscillations of photon density in a resonant medium (an aggregate of identical two-level molecules) for the case when there are no quanta at the initial instant of time, and the distribution of the molecules by levels is fixed. Photon losses are neglected. It is found that at the start of the process the molecules radiate independently, in agree-

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ACCESSION NR: AP4012560

ment with perturbation theory, but after some time the stimulated collective emission causes the process to develop in a fashion other than called for by perturbation theory or the balance equation. Eventually all molecules begin to vibrate collectively, with the time during which the emission occurs is several orders of magnitude smaller than the lifetime of the isolated molecule. The period of the oscillations and the maximum photon density are determined, and the reduction in the width of the spectral line with increasing photon density is explained. The equations derived are applied to a ruby laser and the results compared with experiment. "The authors are grateful to N. G. Basov for a discussion of the results." Orig. art. has: 25 formulas.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering-Physics Institute)

Card 2/3

ACCESSION NR: AP4025939 S/0056/64/046/003/1066/1073

AUTHOR: Galitskiy, V. M.; Yakimets, V. V.

TITLE: Effect of quantum absorption on bremsstrahlung of ultrarelativistic electrons

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 46, no. 3, 1964, 1066-1073

TOPIC TAGS: quantum absorption, bremsstrahlung, classical electrodynamics, quantum electrodynamics, bremsstrahlung suppression, dielectric constant, electron poistron pair production

ABSTRACT: The article deals with frequencies much below the electron energy, making it possible to use a classical description of the electromagnetic field. A general method is developed to calculate the effect of the medium of the energy lost by fast particles passing through the medium. The method is used to determine the influence of absorption on the bremsstrahlung of ultrarelativistic electrons. It is shown that at high energies the bremsstrahlung is strongly suppressed in a certain frequency range. In the case of lead, for example, the

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ACCESSION NR: AP4025939

suppression takes place at $E >> 10^{14}$ eV in the frequency range $10^8 << \omega << 10^{-22} E^2$ eV. The effect of the medium on the electromagnetic field can therefore be taken into account phenomenologically by introducing a dielectric constant. The effect of density is calculated for differential losses of electron energy due to production of electron-positron pairs. "In conclusion the authors consider it their pleasant duty to thank I. I. Gurevich for interesting discussions." Orig. art. has: 3 figures and 44 formulas.

ASSOCIATION: Institut yadernoy fiziki Sibirskogo otdeleniya AN SSSR (Institute of Nuclear Physics, Siberian Department, AN SSSR)

SUBMITTED: 24Aug63 DATE ACQ: 16Apr64 ENCL: 01

SUB CODE: PH NR REF SOV: 006 OTHER: 002

Card 2/3

L 16517-65 EWA(k)/EWT(1)/EEC(k)-2/T/EEC(b)-2/EWP(k)/EWA(m)-2 Po-4/Pf-4/
Pi-4/Pl-4 IJP(c)/ESD(gs)/ESD(dp)/ESD(t)/SSD/AFWL/ASD(a)-5/AS(mp)-2/AFMD(t)/AFETR
ACCESSION NR: AP5000349 WG/JHB S/0056/64/047/005/1893/1904

AUTHORS: Alekseyev, A. I.; Galitskiy, V. M. B

TITLE: Dielectric constant of resonant medium

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47, no. 5, 1964, 1893-1904

TOPIC TAGS: dielectric constant, photon density fluctuation, two level quantum system, polarization, level population

ABSTRACT: This is a continuation of an earlier paper (ZhETF v. 46, 320, 1964) dealing with density fluctuations of photons in a medium consisting of a large number of identical two-level quantum objects, where it was assumed that there are no quanta at the initial instant of time and that the distribution of the molecules over the levels is fixed. In the present article the authors considered the general case of a specified initial number of quanta

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ACCESSION NR: AP5000349

and an arbitrary distribution of the molecules over the levels. A closed system of equations for the vector potential, polarization current, and excess population of the levels is written out and used to derive a general expression for the dielectric constant of a resonant medium. The limiting cases of a weak and strong field are studied in detail. In the case of a weak field it is sometimes more convenient to describe the electromagnetic oscillations directly in terms of the closed system of equations for the vector potential and the polarization current and the level excess population. In the case of a strong field, the dependence of the dielectric constant on the amplitude of the electromagnetic field is determined. A general solution is obtained for the closed system of equations for the vector potential, the polarization current, and the excess level population without account of the pumping and relaxation losses. The natural oscillations in the resonant medium are obtained for weak and strong fields. "The authors thank Yu. A. Vdovin for a discussion of this work." Orig. art. has: 47 formulas.

Card 2/3

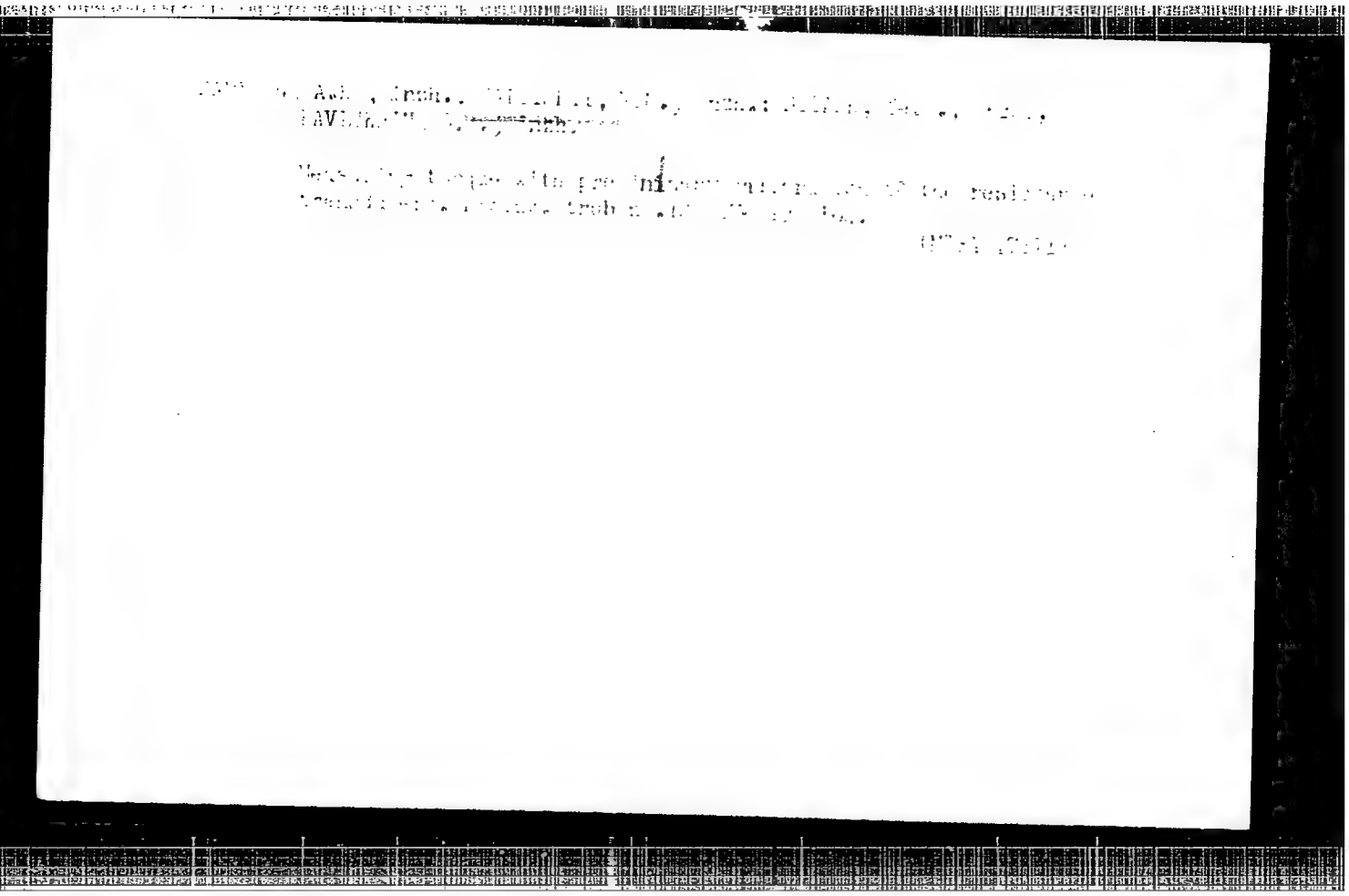
L 16517-65
ACCESSION NR: AP5000349

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering-Physics Institute)

SUBMITTED: 16May64 ENCL: 00

SUB CODE: EC, OP NR REF SOV: 006 OTHER: 005

Card 3/3



ALEKSEYEV, A.I.; GALITSKIY, V.M.

Dielectric constant of a resonance medium. Zhur. eksp i teor. fiz. 47 no.5:1893-1904 N '64. (MIRA 18:2)

1. Moskovskiy inzhenerno-fizicheskiy institut.

L 58452-65 EWT(1)
ACCESSION NR: AP5013894 UR/0056/65/048/005/1352/1365

AUTHORS: Vdovin, Yu. A.; Galitskiy, V. M.

TITLE: Propagation of photons in a medium of resonant molecules

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 5, 1965, 1352-1365

TOPIC TAGS: photon propagation, resonant molecule, two level molecule, elementary excitation, material quantum, diagram techniques, Green function

ABSTRACT: The authors investigate the interaction between an electromagnetic field and an assemblage of identical strictly resonant two-level molecules. This problem is of interest in connection with extensive research being carried out presently on resonant processes in interactions between photons and a medium. Weakly excited states of the system are considered, so that the interaction between the quanta themselves can be neglected. The operators of the elementary excitations (quanta in

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L 58452-65
ACCESSION NR: AP5013894

2

the medium) are introduced. The damping of the excitations is investigated and a suitable diagram technique is developed with which to determine the photon Green's functions in such a medium. The propagation of the photons is studied under the condition when either a specified photon or a quantum of the medium is present at the initial instant of time. Account is taken of both the departure and of the arrival of photons in a given state. The energy distribution function of the photons is determined. 'The authors thank A. I. Alekseyev for useful discussions.' Original article has: 8 figures and 66 formulas

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut
(Moscow Engineering Physics Institute)

SUBMITTED: 02Nov64 ENCL: 00 SUB CODE: NP, EM

NR REF SOV: 006 OTHER: 002

121

Card 2/2

L 10177-66 EWT(m) DIAAP

ACC NR: AP5026402 SOURCE CODE: UR/0386/65/002/006/0259/0262

AUTHOR: Bayer, V. N.; Galitskiy, V. M.

ORG: Novosibirsk State University (Novosibirskiy gosudarstvennyy universitet)

TITLE: Double bremsstrahlung in electron collisions

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 2, no. 6, 1965, 259-262

TOPIC TAGS: bremsstrahlung, electron collision, collision cross section, photon emission

ABSTRACT: The authors present the results of a calculation of the cross section for the emission of two photons with arbitrary energy in electron-electron and electron-positron collisions. This question is of great interest in connection with colliding-beam experiments. The emission of two soft photons was treated by them earlier (Phys. Lett. v. 13, 355, 1964), as was the emission of one soft photon and one photon of arbitrary energy (ZhETF v. 49, 661, 1965). Most of the calculations are based on the results of the latter paper. Formulas are derived for the double-bremsstrahlung cross section and for the ratio of the double-bremsstrahlung cross section in the region of hard photons to the cross section for two-quantum annihilation of an electron-positron pair. It is shown that if the photon detectors have a reasonable energy resolution, these cross sections become equal at energies on the order of 1 Bev. Orig. art. has: 6 formulas.

SUB CODE: 20/ SUBM DATE: 12Jul65/ ORIG REF: 001/ OTH REF: 001

Card 1/1

BAYYER, V.N.; GALITSKIY, V.M.

Two-photon emission in electron collisions. Zhur. eksp. i teor. fiz. 49 no.2:661-671 Ag '65. (MIRA 18:9)

1. Novosibirskiy gosudarstvennyy universitet.

L 4971-66 EWT(1)/EPF(c) IJP(c) WW/GG

ACC NR: AP5026603 SOURCE CODE: UR/0056/65/049/004/1109/1117

AUTHOR: Alekseyev, A. I.; Galitskiy, V. M.

ORG: Moscow Engineering Physics Institute (Moskovskiy inzhenerno-fizicheskiy institut)

TITLE: Emission from a system of resonant molecules with a spread of energy levels

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 4, 1965, 1109-1117

TOPIC TAGS: molecular spectroscopy, quantum resonance, excitation energy, emission spectrum

ABSTRACT: A method previously derived for the case of exact resonance (ZhETF v. 46, 320, 1964) is used to determine the emission from a macroscopic system of identical two-level molecules when the supposedly identical energy levels of the molecules deviate slightly from exact resonance, for example, as a result of the Stark or the Doppler effects. The limiting cases of large and small spreads of the levels are investigated. For a small spread (narrow resonance) the molecular emission has a collective nature and the usual equations no longer hold. For a large spread (broad resonance), quantum-number and population-level regions are

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L 4971-66
ACC NR: AP5026603

6

found in which the emission law is the same as calculated by perturbation theory and the usual equations are valid. The question of complete de-excitation of the initially excited molecules is discussed and the limits of applicability of the linear approximation in problems involving the interaction between radiation and resonant molecules are determined. The relation between these limits and the initial relative populations of the levels is discussed. Although the analysis is confined to a two-level system with fixed level distribution and no emission at the initial instant of time, the analysis is valid for arbitrary boundary conditions. The authors thank Yu. A. Vdovin and A. M. Golovin for a discussion of some pertinent problems. Orig. art. has: 27 formulas. [02]

SUB CODE: EM, NP/ SUBM DATE: 12Feb65/ ORIG REF: 010/ ATD PRESS: 4138

DC

Card 2/2

BAYER, V.N.; GALITSKIY, V.M.

Double bremsstrahlung in electron collisions. Pis'. v red. Zhur. eksper. i teor.fiz. 2 no.6:259-262 S '65.

(MIRA 18:12)

1. Novosibirskiy gosudarstvennyy universitet. Submitted July 12, 1965.

ACC NR: AP6037040 SOURCE CODE: UR/0056/66/051/005/1592/1608

AUTHOR: Vaks, V. G.; Galitskiy, V. M.; Larkin, A. I.

ORG: none

TITLE: Collective excitations near second order phase transition points

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 5, 1966, 1592-1608

TOPIC TAGS: second order phase transition, crystal lattice vibration, permitivity, excitation spectrum, ferroelectricity

ABSTRACT: The authors present a microscopic treatment of critical excitations in solids with temperature-dependent frequency, which tends to zero on approaching the transition point. The theory developed makes it possible to explain the region of existence of the critical vibrations and the physical meaning of the phenomenological parameters employed. Simple models, which are not related to any specific substance but which include all the essential properties of the real crystals, are considered. The interaction radius is assumed to be large enough to permit the use of the self-consistent field method. This method is then used to determine the spectrum of these excitations and the dispersion of the dielectric permitivity in ferroelectric transitions. A diagram technique, which makes it possible to calculate further approxima-

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ACC NR: AP6037090

tions of the self consistent field method, is developed. The damping of the excitations is determined with the aid of this method. It is found that very close to the critical frequency the damping is comparable to the frequency, so that the concept of vibrations loses its meaning. The critical vibrations are thus described in the entire region of their existence in the self-consistent field approximation. The applicability of the results to real systems is discussed, and an extension to first-order transitions is considered. Orig. art. has: 3 figures and 55 formulas.

SUB CODE: 20/ SUBM DATE: 22Jun66/ ORIG REF: 019/ OTH REF: 004

Card 2/2

KOVALEV, S.N.; VERNIK, Ye.B.; GALITSKIY, V.N.; KOGOSOV, L.P.

Making abrasive diamond tools of synthetic diamonds. Mashinostroitel' no.10:7-9 O '64. (MIRA 17:11)

GALITSKIY, V.N.

Experience in using Moscow economy walls in housing construction.
Gor.khoz.Mosk. 25 no.12:26-28 D '51. (MLRA 7:11)

1. Glavnyy inzhener Moskovskogo gorodskogo upravleniya zhilishchnogo stroitel'stva.
(Walls) (Bricks)

GALITSKIY, V.N., inzhener.

Organization of double shift operations in construction. Gor.khoz.Mosk. 27 no.7:5-6 Jl '53. (MLRA 6:7)

(Construction industry--Management)

GALITSKIY, V. [N.]

"Room-sized Partitions," Arkhitektura i Stroitel'stvo Moskvy, Moscow, No. 5, May 55.

Article concerned with building of pre-cast concrete partitions for constructions.

GALITSKIY, V.N.

Improve industrialized building. Gor. khoz. Mosk. 32 no.4:5-6 Ap '58.
(MIRA 11:4)

1. Glavnyy inzhener Proizvodstvenno-raspоryaditel'nogo upravleniya Glavmosstroya.

(Moscow--Building)

SAMOKHVALOV, Sergey Ivanovich; GALITSKIY, V.N., nauchnyy red.; NAUMOVA, G.D., tekhn. red.

[Construction industry in the U.S.A.] Stroitel'naia promyshlennost' SShA. Moskva, Gosstroiizdat, 1963. 144 p. (MIRA 16:7)
(United States--Construction industry)

BLOKHIN, Boris Nikolayevich; SMIRNOV, N.A., prof., retsenzent; SPIRIDONOVA, O.M., dots., kand. tekhn.nauk, retsenzent; CHERNOV, T.P., prof., retsenzent; PREDTECHENSKIY, V.M., prof., doktor tekhn. nauk, retsenzent; RUFFEL', N.A., dots., retsenzent; ZAYTSEV, A.G., prof., retsenzent; DROZDOV, A.G., inzh.; GALITSKIY, V.N., inzh., retsenzent; ZHELUDKOV, V.I., inzh., nauchn. red.; LYTKINA, L.S., red.; DASIMOV, D.Ya., tekhn. red.

[Technology of the construction industry] Tekhnologiia stroitel'nogo proizvodstva. Moskva, Gosstroiizdat, 1963. 263 p. (MIRA 17:1)

1. Zaveduyushchiy kafedroy stroitel'nogo proizvodstva Leningradskogo inzhenerno-stroitel'nogo instituta (for Smirnov). 2. Kafedra stroitel'nogo proizvodstva Leningradskogo inzhenerno-stroitel'nogo instituta (for Spiridonova). 3. Zaveduyushchiy kafedroy stroitel'nogo proizvodstva Moskovskogo inzhenerno-stroitel'nogo instituta imeni V.V.Kuybysheva (for Chernov). 4. Moskovskiy inzhenerno-stroitel'nyy institut imeni V.V.Kuybysheva (for Predtechenskiy, Ruffel'). 5. Zaveduyushchiy kafedroy stroitel'nykh materialov Moskovskogo arkhitekturnogo instituta (for Zaytsev). 6. Glavnyy inzhener Moskovskogo arkhitekturno-planirovochnogo upravleniya (for Drozdov). 7. Direktor Moskovskogo domostroitel'nogo kombinata No.1 (for Galitskiy).

GRIFOVSKIY, I.Kh., inzh.; IMENSKIY, V.I.; GALITSKIY, V.N., inzh.

"Honing cylinders and connecting rods of the D37M engine with synthetic-diamond bars. Vest.mashinostr. 45 no.3:53-56 Mr '65. (MIRA 18:4)

AUTHOR: Galitskiy, V.V., Engineer. 104-2-26/38

TITLE: Controlling the speed of rotating dust feeders (Regulirovaniye skorosti vrashcheniya pitateley pyli)

PERIODICAL: "Elektricheskie Stantsii" (Power Stations), 1957, Vol.28, No.2, pp. 86 - 87 (U.S.S.R.)

ABSTRACT: This brief article describes speed control of rotating pulverised fuel feeders by a direct current motor and by an induction motor and conical pulley speed variator. The variator has operated satisfactorily for ten years and it is concluded that it is simpler and more reliable than a d.c. motor. The total equipment is also cheaper and its use should be extended.

There are 2 figures.

AVAILABLE:

Card 1/1

GALITSKIY, V.V., kand. geol-mineral. nauk

Construction of phosphorus plants in the Karatau. Vest. AN Kazakh. SSR 20 no.6:26-31 Je '64 (MIRA 18:1)

L 11182-63 EDS

ACCESSION NR: AP3003395 S/0142/63/006/003/0265/0270

46

AUTHOR: Galitskiy, V. V.

TITLE: A model of a diffused transistor

SOURCE: IVUZ. Radiotekhnika, v. 6, no. 3, 1963, 265-270

TOPIC TAGS: diffused transistor, transistor base model, lumped constant line, resistance multiplier, transfer characteristics, rise time, nonuniform base

ABSTRACT: The calculation of transistor transfer characteristics is investigated. Fig. 1 of Enclosure shows the circuit of a unidimensional model of a diffused transistor which facilitated determination of the influence of various transistor elements on operational characteristics. The model consists of two parts. Part 1 is a model of a transistor base, representing a lumped constant line with a finite number of elements. Part 2 is a transistorized multiplier with a common base configuration. Transfer characteristics of the emitter voltage as well as the collector current were taken at base resistance $r_b = 0$ and at various values of generator impedance R_g (see Fig. 2 of Enclosure). The disagreement between calculated and experimental transfer characteristics did not exceed 5% and can be

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L 11122-63
ACCESSION NR: AP3003395

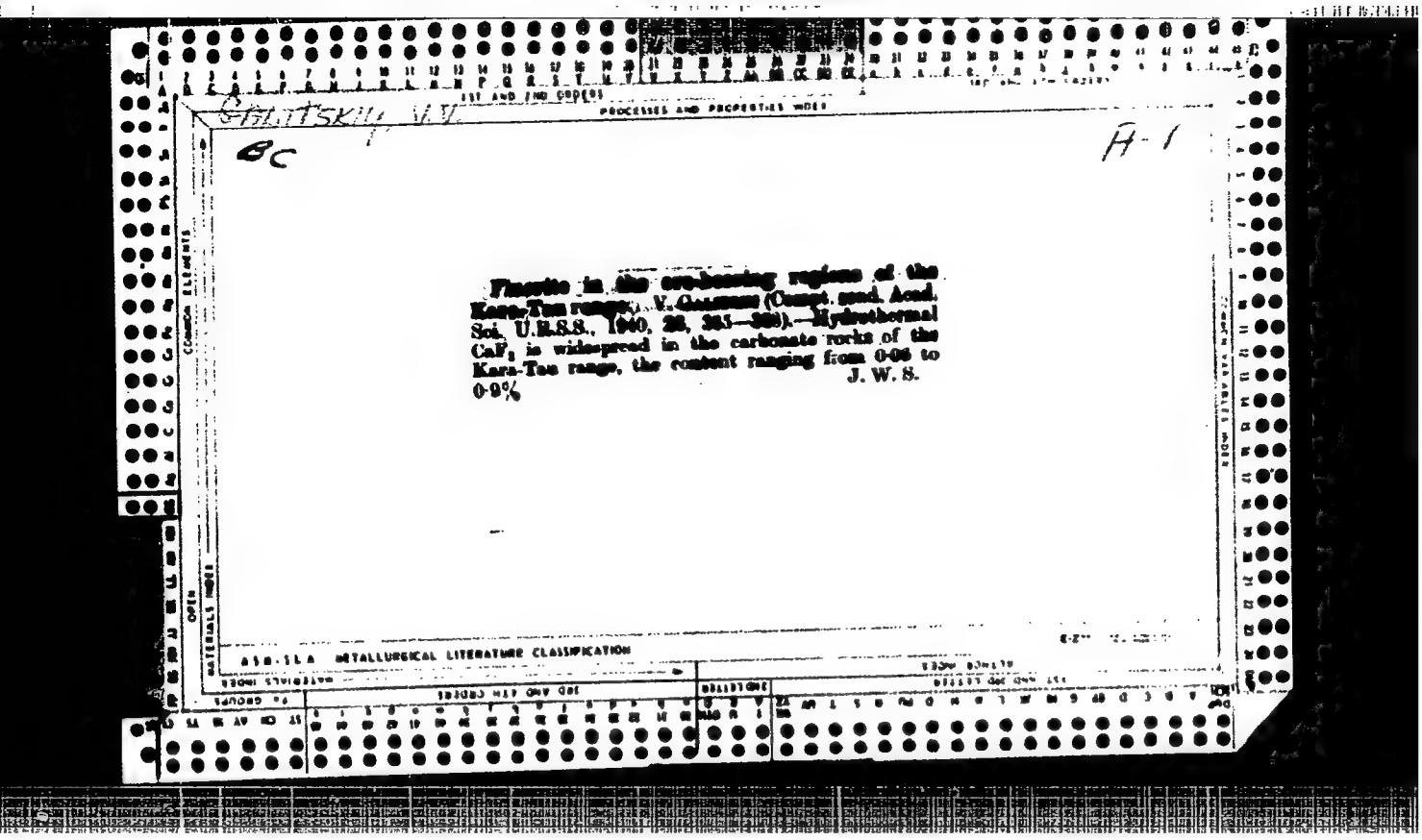
attributed to a measurement error. Also calculated were transfer characteristics of the collector current under various impedances and with a short-circuited output at $r_b = 0.2r_e$ (e, emitter) $r_b = r_e$, and $r_b = 5r_e$ (see Fig. 3 of Enclosure). Fig. 4 of Enclosure shows the dependence of rise time on r_b and r_g. Orig. art. has: 5 figures and 16 formulas.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering Physics Institute)

SUBMITTED: 250ct62 DATE ACQ: 02Aug63 ENCL: 04

SUB CODE: SA NO REF SOV: 003 OTHER: 007

Card 2/6



GALITSKII, V.V.

8C

A-1

Fluorite in the ore-bearing regions of the Kara-Tau range. V. Gatsenmer (Compt. rend. Acad. Sci. U.R.S.S., 1940, 28, 385—388).—Hydrothermal CaF_2 is widespread in the carbonate rocks of the Kara-Tau range, the content ranging from 0·06 to 0·9%. J. W. S.

A50-1LA METALLURGICAL LITERATURE CLASSIFICATION

GALITSKIY, V. V.

"Geomorphology & Quaternary Movements of Kara-Tow,"

Iz. Ak. Nauk SSSR, Ser. Geograf. i Geofiz, No. 2, 1943.

GALITSKIY, V. V.

PA 34T31

USSR/Geography
Geology

May 1947

"Karatau," V. V. Galitskiy, Candidate in Geological-Mineralogical Sciences, 5 pp

"Nauka i Zhizn" No 5

Karatau is 2,176.5 meters in height and is located in the southern part of Kazakhstan. The author gives a description of the mountain itself and the region surrounding it. Two pages of photographic plates showing the topographical features of the surrounding territory.

34T31

ZOLOTAREV, M.A.; PIDOPLICHKO, I.G.; FEDOROV, P.V.; VASIL'YEV, V.N.; IVANOVA, I.K.; GROMOV, V.I.; SOKOLOV, D.S.; ZHIRMUNSKIY, A.M.; PARMUZIN, Yu.P.; PLYUSNIN, I.I.; KATS, N.Ya.; GRICHUK, V.P.; YEFREMOV, Yu.K.; MOSKVITIN, A.I.; LEBEDEV, V.D.; TEODOROVICH, G.I.; ZVORYKIN, K.V.; MIKHNOVICH, V.P.; GALITSKIY, V.V.; MAKEYEV, P.S.; NIKIFOROVA, K.V.; GORDEYEV, D.I.; YANSHIN, A.L.; DUMITRASHKO, N.V.; SHANTSER, Ye.V.; P'YAVCHENKO, N.I.; FLEROV, K.K.; PIDOPLICHKO, I.G., doktor biologicheskikh nauk, professor.

Papers presented at the conference on the history of Quaternary flora and fauna in relation to the development of Quaternary glaciation. Trudy Kom.chetv.per. 12:129-189 '55. (MLRA 9:4)

1.Gidrometeosluzhba (for Zolotarev).2.Zoologicheskiy institut AN USSR (for Pidoplichko).3.Institut okeanologii AN SSSR (for Fedorov).4.Botanicheskiy institut AN SSSR (for Vasil'yev).5.Komissiya po izucheniyu chetvertichnoge perioda AN SSSR (for Ivanova).6.Institut geologicheskikh nauk AN SSSR (for Gromov, Yanshin, Nikiforova, Moskvitin).7.Moskovskiy geologo-razvedochnyy institut imeni Ordzhonikidze (for Sokolov). 8.Akademiya nauk Belorusskoy SSR (for Zhirmunskiy).9.Moskovskiy institut inzhenerov vodnogo khozyaystva (for Plyusnin).10.Geograficheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta (for Yefremov, Parmuzin).11.Moskovskiy gosudarstvennyy universitet (for Lebedev, Zvorykin).12.Institut nefti AN SSSR (for Teodorovich).13.Transproektkar'yer Ministerstva putey soobshcheniya (for Mikhnovich).14.Vsesoyuznyy aerogeologicheskiy trest (for Galitskiy).15.Sovet po izucheniyu proizvoditel'nykh sil AN SSSR (for Makeyev).

(Continued on next card)

ZOLOTAREV, M.A.-----(continued) Card 2.

16.Laboratoriya gidro-geologicheskikh problem AN SSSR (for Gordeyev).
17.Institut geografii AN SSSR (for Dumitrashko, Grichuk).

(Paleontology) (Paleobotany) (Glacial epoch)

GALITSKIY, V.V., kandidat geologo-mineralogicheskikh nauk.

Regulating stream flows in the central Kara-Tau for purposes of eliminating catastrophic floods and reducing mine flooding. Vest.AN Kazakh.SSR 12 no.4:94-96 Ap '56. (MLRA 9:8)

1. Predstavlena akademikom AN KazSSR U.M. Akhmedsafinym.
(Kara-Tau--Floods)

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 7, p 33 (USSR) 14-57-7-14472

AUTHOR: Galitskiy, V. V.

TITLE: Recent Tectonics as a Formative Agent in the Karatau Range (Rol' molodoy tektoniki v formirovanii khrebta Karatau)

PERIODICAL: Izv. AN KazSSR, ser. geol. 1956, Nr 24, pp 94-102

ABSTRACT: The author reviews critically the studies of N. I. Kriger and A. I. Semenov, "Rol' molodoy tektoniki v geomorfogeneze Malogo Karatau i yego predgoriy" (Izv. Vses. geogr. o-va, 1953, Vol 85, Nr 5, pp 577-587) ("Recent Tectonics as a Formative Agent in the Geomorphogenesis of Lesser Karatau and Its Foothills" (Proceedings of the All-Union Geographical Society)), in which these authors reject all theories concerning Quaternary movements to which previous investigators

Card 1/2

Recent Tectonics as a Formative Agent (Cont.) 14-57-7-14472

of this area had subscribed. The author offers abundant evidence of Quaternary geology and geomorphology in the Karatau range and adjoining regions, showing that there were many different and vigorous Quaternary movements in this area. He also shows that Karatau and Lesser Karatau were formed in the post-sokhskoye vremya (period). A bibliography of 30 titles is included.

Card 2/2

G. K.

GALITSKIY, V.V.

Paleohydrography and recent structural geology of the eastern Balkhash region. Izv. AN Kazakh.SSR. Ser.geol.no.3:40-69 '57.
(MIRA 10:10)
(Balkhash region--Geology, Structural)

SATPAYEV, K.I.; BORUKAYEV, R.A.; AKHMEDSAFIN, U.M.; BOK, I.I.; KUSHEV, G.L.; SMRGIYEV, N.G.; SHLYGIN, Ye.D.; SHCHERBA, G.N.; MONICH, V.K.; LOMONOVICH, I.I.; LAVROV, V.V.; MEDOYEV, G.TS.; NOVOKHATSKIY, I.P.; BARBOT-DE-MARNI, A.V.; GALITSKIY, K.V.; KOLOTILIN, N.F.; ZHILINSKIY, G.B.; KAYUPOV, A.K.; KAZANLI, D.N .; SATPAYEVA, T.A.; ABDULKABIROVA, M.A.; GAZIZOVA, K.S.; VEYTS, B.I.; KHAYRUTDINOV, D.Kh.; MUKHAMEDZHANOV, S.M.; CHOLPANKULOV, T.Ch.; PARSHIN, A.V.; TAZHIBAYEVA, P.T.; YANULOVA, M.K.; BYKOVA, M.S.; VOLKOV, A.N.; BOLGOV, G.N.; MITRYAYEVA, N.M.; CHOKABAYEV, S.Ye.; KUNAYEV, D.S.; YARENSKAYA, M.A.; REBROVA, T.I.

Tireless explorer of the depths of the earth's crust; on the 65th birthday and 40th anniversary of the scientific engineering activities of Academician M.P. Rusakov. Vest. AN Kazakh. SSR 13 no.12:96-97 D '57. (MIRA 11:1)

(Rusakov, Mikhail Petrovich, 1892-)

BORUKAYEV, R.A., akad.; BORSUK, B.I.; KELLER, B.M.; AYTALIYEV, Zh.A.; BOGDANOV, A.A.; BUBLICHENKO, N.L.; BYKOVA, M.S.; GALITSKIY, V.V.; MEDOYEV, G.Ts.; MYAGKOV, V.M.; ORLOV, I.V., RUKAVISHNIKOVA, T.B.; SHLYGIN, Ye.D.; NIKITIN, I.F., uchenyy sekretar'; SENKEVICH, M.A., uchenyy sekretar'.

[Resolutions of the Conference on the Unification of Stratigraphic Charts of the Pre-Paleozoic and Paleozoic of Eastern Kazakhstan] Rezoliutsiia po unifikatsii stratigraficheskikh skhem dopaleozoia i paleozoia vostochnogo Kazakhstana. Alma-Ata, Izd-vo Akad. nauk Kazakhskoi SSR, 1958. 36 p. (MIRA 11:12)

1. Soveshchaniye po unifikatsii stratigraficheskikh skhem dopaleozoya vostochnogo Kazakhstana. Alma-Ata, 1958. 2 Akademiya nauk Kazakhskoy SSR, predsedatel' soveshchaniya po unifikatsii stratigraficheskikh skhem dopaleozoya i paleozoya vostochnogo Kazakhstana (for Borukayev). 3. Zam.predsedatelya soveshchaniya po unifikatsii stratigraficheskikh skhem dopaleozoya i paleozoya vostochnogo Kazakhstana; Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut (for Borsuk). 4. Zam.predsedatelya soveshchaniya po unifikatsii stratigraficheskikh skhem dopaleozoya i paleozoya vostochnogo Kazakhstana; Geologicheskiy institut Akademii nauk SSSR (for Keller). 5. Ministerstvo geologii i okhrany nedr Kazakhskoy SSR (for Aytaliyev, Myagkov). 6. Moskovskiy gosudarstvennyy universitet im. M.V.

(Continued on next card)

BORUKAYEV, R.A.---(continued) Card 2.

Lomonosova (for Bogdanov). 7. Altayskiy gorno-metallurgicheskiy nauchno-issledovatel'skiy institut Akademii nauk Kazakhskoy SSR (for Bublichenko). 8. Institut geologicheskikh nauk Akademii nauk Kazakhskoy SSR (for Bykova, Galitskiy, Medoyev, Shlygin, Nikitin). 9. TSentral'no-Kazakhstanskoye geologicheskoye upravleniye (for Orlov). 10. Yuzhno-Kazakhstanskoye geologicheskoye upravleniye (for Rukavishnikova, Senkevich).

(Kazakhstan--Geology, Stratigraphic)

GALITSKIY, V.V.

Formation of valleys. Izv. AN Kazakh. SSR. Ser. geol. no.3:89-98 '59. (MIRA 13:12)

(Valleys)

BANDALETOV, S.M.; BESPALOV, V.F.; BOGATYREV, A.S.; BOK, I.I.; GALITSKIY, V.V.; ZHILINSKIY, G.B., IVSHIN, N.K.; KAZANLI, D.N.; KAYUPOV, A.K.; KONEV, A.K.; KUSHEV, G.L.; LYAPICHEV, G.F.; MEDOYEV, G.TS.; MONICH, V.K.; MYAGKOV, V.M.; NIKITIN, I.F.; NOVOKHATSKIY, I.P.; SATPAYEV, K.I.; SHLYGIN, Ye.D.; SHCHERBA, G.N.

Eminent geologist of Kazakhstan. Vest. AN Kazakh.SSR 15 no.1: 94-95 Ja '59. (MIRA 12:1)
(Borukaev, Ramazan Aslanbekovich, 1899-)

BORUKAYEV, R.A., otv.red.; AYTALIYEV, Zh.A., red.; BUBLICHENKO, N.L., red.; BYKOVA, M.S., red.; GALITSKIY, V.V., red.; MEDOYEV, G.Ts., red.; NIKITIN, I.F., red.; RUKAVISHNIKOVA, T.B., red.; SENKEVICH, M.A., red.; SHLYGIN, Ye.D., red.; SEMENOV, M.N., red.; PROKHOROV, V.P., tekhn.red.

[Transactions of the Conference on the Unification of Stratigraphic Scales of the Pre-Paleozoic and Paleozoic in Eastern Kazakhstan. Alma-Ata, 1958] Trudy Soveshchaniia po unifikatsii stratigraficheskikh skhem dopaleozoia i paleozoia Vostochnogo Kazakhstana. Alma-Ata, Izd-vo Akad.nauk Kazakhskoi SSR. Vol.2. [Devonian, Carboniferous, Permian] Devon, karbon, perm'. 1960. 253 p. (MIRA 13:8)

1. Soveshchaniye po unifikatsii stratigraficheskikh skhem dopaleozoia i paleozoia Vostochnogo Kazakhstana. Alma-Ata, 1958. 2. Altayskiy gornometallurgicheskiy nauchno-issledovatel'skiy institut AN KazSSR (for Bublichenko). 3. Institut geologicheskikh nauk AN KazSSR (for Bykova). 4. Yuzhno-Kazakhstanskoye geologicheskoye upravleniye (for Senkevich).

(Kazakhstan--Geology, Stratigraphic)

BORUKAYEV, R.A., akademik, otv.red.; AYTALIYEV, Zh.A., red.; BUBLICHENKO, N.L., red.; BYKOVA, M.S., red.; GALITSKIY, V.V., red.; IVSHIN, N.K., red.; MEDOYEV, G.TS., red.; NIKITIN, I.F., red.; RUKAVISHNIKOVA, T.B., red.; SENKEVICH, M.A., red.; SHLYGIN, Ye.D., red.; SEMENOV, M.N., red.; PROKHOROV, V.P., tekhn.red.

[Transactions of the conference on the unification of stratigraphic diagrams of the Pre-Paleozoic and Paleozoic in eastern Kazakhstan, Alma-Ata, May 12-17, 1958.] Trudy Soveshchaniya po unifikatsii stratigraficheskikh skhem dopaleozoya i paleozoya Vostochnogo Kazakhstana. Alma-Ata. Izd-vo Akad.nauk Kazakhskoi SSR. Vol.1. [Pre-Paleozoic, Cambrian, Ordovician, Silurian] Dopaleozoi, kembrii, ordovik, silur. 1960. 296 p. (MIRA 13:6)

1. Soveshchaniye po unifikatsii stratigraficheskikh skhem dopaleozoya i paleozoya Vostochnogo Kazakhstana. Alma-Ata, 1958. 2. Predsedatel' Orgkomiteta stratigraficheskogo soveshchaniya; AN KazSSR; Institut geologicheskikh nauk AN KazSSR (for Borukayev). 3. Institut geologicheskikh nauk AN KazSSR (for Nikitin). 4. Yuzhno-Kazakhstanskoye geologicheskoye upravleniye (for Rukavishnikova).
(Kazakhstan--Geology, Stratigraphic)

SATPAYEV, K.I.; POLOSUKHIN, A.P.; BAISHEV, S.B.; CHOKIN, Sh.Ch.; BORUKAYEV, R.A.; AKHMEDSAFIN, U.M.; KUSHEV, G.L.; SHCHERBA, G.N.; MONICH, V.K.; MEDOYEV, G.TS.; LAVROV, V.V.; BARBOT-DE-MARNI, A.V.; GALITSKIY, V.V.; ZHILINSKIY, G.B.; KAYUPOV, A.K.; KAZANLI, D.N.; KOLOTILIN, N.F.; MUKHAMEDZHANOV, S.M.; SATPAYEVA, T.A.; VEYTS, B.I.; GAZIZOVA, K.S.; CHOLPANKULOV, T.Ch.; PARSHIN, A.V.; BYKOVA, M.S.; MITRYAYEVA, N.M.; VOLKOV, A.N.; CHAKABAYEV, S.Ye.; YARENSKAYA, M.A.; KHAYRUTDINOV, D.Kh.

On the 60th anniversary of the birth of I.I. Bok, Academician of the Academy of the Kazakh S.S.R. Vest.AN Kazakh.SSR 14 no.10:95-96 O '58. (MIRA 11:12)

(Bok, Ivan Ivanovich, 1898-)

BAZHANOV, V.S., GALITSKIY, V.V.; YEREMIN, V.K.; KOSTENKO, N.N.; MEDOYEV, G.TS.; TETYUKHIN, G.P.

Resoultions of the Second Kazakhstan Interdepatrmental Conference on the Quaternary Period and Geomorphology of Kazakhstan. Izv.AN Kazakh.SSR. Ser.geol. no.5:115-119 '62. (MIRA 15:12)

1. Akademiya nauk Kazakhskoy SSR (for Bazhanov, Galitskiy, Medoyev). 2. Ministerstvo geologii i okhrany nedr Kazakhskoy SSR (for Yeremin). 3. YuKGU (for Kostenko). 4. Srednеaziatskiy nauchno-issledovatel'skiy institut geologii i mineral'nogo syr'ya, Tashkent (for Tetyukhin).
(Kazakhstan--Geology, Stratigraphic--Congresses)
(Kazakhstan--Geomorphology--Congresses)

13788-65 ASD(a)-5/AFWL
ACCESSION NR: AP4047243 S/0142/64/007/004/0472/0479

AUTHOR: Galitskiy, V. V.

TITLE: Transient responses of a transistor whose electric field varies along the base

SOURCE: IVUZ. Radiotekhnika, v. 7, no. 4, 1964, 472-479

TOPIC TAGS: transistor, transient response

ABSTRACT: The transient responses of the collector current in a drift transistor are considered with the field-strength variation along the base, base resistance, and generator resistance taken into account. As the differential equation for the minority-carrier current flowing in the base of a drift transistor having an arbitrary $E(\xi)$ function is hard to solve, an analogy with a long nonuniform short-circuited line is used; a Laplace transform of the transient response is determined by the matrix method. This permits obtaining the

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ACCESSION NR: AP4047243

transform coefficients in analytical form and facilitates simulation of the transistor; the effect of the number of sections on the error of the long-line model is also considered. Transient responses measured on 10 laboratory models of drift transistors are reported. It is found that the transient responses of drift transistors, for a realizable doping of the base, vary only slightly with the variation of shape of the built-in base field; rather, they depend on the average field strength and the potential difference across the base. Orig. art. has: 4 figures, 19 formulas, and 1 table.

ASSOCIATION: none

SUBMITTED: 26Apr63 ENCL: 00

SUB CODE: EC, MA NO REF SOV: 004 OTHER: 005

Card 2/2

GALITSKIY, V.V.

Calculation of nonuniform RC lines. Izv.vys.ucheb.zav.; radiotekh. 8 no.5:581-584 S-O '65. (MIRA 18:12)

1. Submitted March 23, 1964.

L 27536-66
ACC NR: AP6007509 SOURCE CODE: UR/0109/66/011/002/0302/0312

AUTHOR: Galitskiy, V. V.

ORG: none

TITLE: Analysis of multilayer nonuniform distributed RC-structures

SOURCE: Radiotekhnika i elektronika, v. 11, no. 2, 1966, 302-312

TOPIC TAGS: RC circuit, thin film circuit, microelectronics

ABSTRACT: Heretofore, only one- and two-layer uniform RC-structures have been analyzed in the published literature (e.g., F. A. Lindholm and W. W. Happ, Radio and El. J., Brit. IRE, 1963, 26, 5, 421; W. W. Happ and W. D. Fuller, Proc. Natl. El. Conf., Chicago, 1961, v. 17, pp 597-610). As the structures with up to 15 layers of nonuniform RC-structures have been used in practice, the present article offers a suitable method for solving this type of problem. In principle, the problem involves solution of a set of partial differential equations which may present considerable mathematical difficulties. Hence, a solution avoiding differential equations is offered; the distributed nonuniform structure is replaced by a chain structure, matrices of the

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L 27536-66
ACC NR: AP6007509 0

latter's elements are one-by-one multiplied, and the structure is returned to the initial distributed shape by increasing the number of chain-structure elements to infinity. The method yields Laplace transforms of the matrix coefficients for an RC-structure having any number of layers and practically arbitrary form of parameter-distribution functions in each layer. The method is first applied to the simplest single-layer nonuniform RC-structure which results in formulas also important for the theory of long nonuniform lines; then, the results are generalized over the case of any number of layers. In practical calculations, only a few first terms of the matrix-coefficient series are needed. "The author wishes to thank T. M. Agakhanyan through whose initiative the work was carried out." Orig. art. has: 2 figures and 50 formulas.

SUB CODE: 09 / SUBM DATE: 01Oct64 / ORIG REF: 004 / OTH REF: 004

Card 2/2 BLG

GALITSKIY, Ya.K.

TATARINOV, V.P.; GALITSKIY, Ya.K., inzhener.

Skidding untopped trees. Mekh.trud.rab. 8 no.8:34-38 D '54.
(MLRA 8:1)

1. Direktor Kakmozhskogo lespromkhoza (for Tatarinov).
(Lumbering)

GALITSKIY, Ya.Z., inzh.-ekonomist, red.; PEVZNER, A.S., zav.red.; TOKER, A.M., tekhn.red.

[Manual on consolidated cost indexes of planning and research work] Spravochnik ukrupnennykh pokazatelei stoimosti proektnykh i izyskatel'skikh rabot. Vvoditsia v deistvie s 1 ianvaria 1958 g. Izd.2., ispr. Moskva, Gos.izd-vo lit-ry po stroit. i arkhit. Pt.12. [Enterprises of the chemical industry] Predpriiatiia khimicheskoi promyshlennosti. 1958. 157 p. (MIRA 13:2)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva.
(Chemical plants)

GALITSKIY, Ya.Z., red.; STRASHNYKH, V.P., red. izd-va; KASIMOV, D.Ya., tekhn. red.

[Supplements to Part 12 of the manual of the manual of consolidated indices of the cost of planning andsurveying work; enterprises of the chemical industry] Dopolneniia k chast 12 spravochnika ukrepnennykh pokazatelei stoimosti proektnykh i izyskatel'skikh rabot; predpriiatiia khimicheskoi promyshlennosti. Moskva, Gos.izd-vo lit-ry po stroit., arkhit.i stroit.materialam, 1961. 38 p. (MIRA 14:11)

1. Russia (1923- U.S.S.R.) Gosudarstvennyi komitet po delam stroitel'stva.

(Chemical plants)

GALITSKIY, Yu. N.

3(2), 3(4) SOV/6-59-7-4/25

AUTHOR: Sokolova, O. I.

TITLE: Results of the Competition for the Best Improving Suggestion (Itogi konkursa na luchsheye ratsionalizatorskoye predlozheniye)

PERIODICAL: Geodeziya i kartografiya, 1959, Nr 7, pp 17-21 (USSR)

ABSTRACT: In May 1959, the ordinary competition for the best improving suggestion in the field of topographic-geodetic and cartographic production was concluded at the Glavnoye upravleniye geodezii i kartografii MVD SSSR (Main Administration of Geodesy and Cartography of the Ministry of Internal Affairs of the USSR). 7 aerogeodetic services, 8 cartographic institutes and NRKCh took part. A total of 30 topographic-geodetic, and 31 cartographic, suggestions were submitted. The 1st prize of 1,000 rubles was awarded to V. A. Morozov and V. V. Urusov (Minskaya kartograficheskaya fabrika (Minsk Cartographic Plant) for the "Seamless Fastening of Atlas Blocks". The 2nd prizes of 750 rubles were awarded to: 1) Ya. L. Bratslavskiy, V. M. Varzugin, Yu. N. Galitskiy, O. F. Shetler and V. P. Stepanov (NRKCh) for "Technology of the Use of Standard Bases (tipovaya osnova)". 2) I. V. Gurevich, V. M. Varzugin,

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Results of the Competition for the Best Improving Suggestion

E. O. Radovil'skaya, O. D. Shetker, L. I. Zmeykova for "Technology of the Manufacture of Combined Diapositives" (NRKCh). 3) D. A. Larin (Moskovskoye AGP (Moscow AGP)) for "Reduction of Work in Evaluating the Accuracy of Symmetric Geodetic Nets Formed by Figures of Regular Shape". 4) N. V. Shreyber (Novosibirskoye AGP (Novosibirsk AGP)) for "Light Collapsible Ladder of Dural for Prospecting". - The 3rd prizes of 500 rubles each were awarded to : 1) I. F. Shevaldin (Yakutskoye AGP (Yakutsk AGP)) for "Establishment of Fixed Points by the Method of Thawing by Means of Vapor". 2) V. D. Ol'shanskiy (Yakutskoye AGP (Yakutsk AGP)) for "Construction of an Overhead Trolley for Timber Transport". 3) I. A. Kyzin (Moskovskoye AGP (Moscow AGP)) for "Variation in the Attachment of Photographs on the STD-2". 4) V. F. Zarubin (Moskovskoye AGP (Moscow AGP)) for "Raising of Geodetic Signs by 5-7 Meters". 5) D. I. Smirnov, I. V. Gurevich, Z. I. Aleksandrova, V. M. Varzugin, V. K. Kirillov and I. Ye. Kislyakov (NRKCh) for "Technology of the Completion and Edition of Topographic Maps by the Photorelief Method". 6) M. F. Glushanin (Minskaya kartograficheskaya fabrika (Minsk Cartographic Institute)) for "Vertical Piling Machine for Brochures". 7) A. A. Vnukov

Results of the Competition for the Best Improving Suggestion

(Tashkentskaya kartograficheskaya fabrika (Tashkent Cartographic Institute)) for "Mechanism for the Loading of Trucks With Paper Rolls". 8) A. N. Tsokolenko (Ukrainskoye AGP (Ukrainian AGP)) for "Replacement of the Arc Lamp for the Heliographic-printing Machine KP-1 by an Illuminating Device With Luminescent Lamps DS-40". 9) G. M. Grigor'yev (Sverdlovskoye AGP (Sverdlovsk AGP)) for "Ruler for Drawing in the Preparation of Map Compilations and Final Compilations". 10) L. G. Izrailev (Severo-Zapadnoye AGP (North-west AGP)) for "Improvement of the Contact Mechanism in the Micrometer by Vodar". 11) S. M. Andreyev (Moskovskoye AGP (Moscow AGP)) for "Formulas and Form for a More Rational Computation of Superelevations From the Trigonometric Leveling". 12) D. G. Vil'ner (Sverdlovskoye AGP (Sverdlovsk AGP)) for "New Numbering and Painting of Leveling Staffs". 13) G. M. Grinberg (Moskovskoye AGP (Moscow AGP)) for "Formulas and Table for Extreme Divergences Between the Free Terms of Polar and Base Conditions Computed on a Plane and on a Ball". - Besides, the following suggestions were approved by the jury: 1) V. T. Trykov (Sverdlovskoye AGP (Sverdlovsk AGP)), "Underframe for Observations From the Telescopic Tower". 2) B. V. Osinskiy

Results of the Competition for the Best Improving Suggestion

(Severo-Zapadnoye AGP (North-west AGP))Template(paletka) for Determining the Corrections of Centering and Reducing With an Auxiliary Scale for Determining the Corrections of the Curvature of the Image of the Geodetic Line and of the Spheric Excess". 3) V. G. Mauyerer (Moskovskoye AGP (Moscow AGP)) , "Variation of the Construction of the Heliotrope". 4) G. M. Shlefendorf (Moskovskoye AGP (Moscow AGP)), "Zero Thermostat for the Gravimeters of the GAK-ZM-type". 5) P. I. Popov (Moskovskoye AGP (Moscow AGP)), "Device for Cutting Aluminum". 6) A. I. Fikhman and G. M. Grinberg (Moskovskoye AGP (Moscow AGP)), "Prospecting Mast". 7) Ya. I. Negnevitskiy, N. A. Pashukevich and M. F. Glushanin (Minskaya kartograficheskaya fabrika (Minsk Cartographic Institute)), " A Workbench Device for Mixing Offset Colors". 8)I. L. Gintsberg (Tashkentskaya kartograficheskaya fabrika (Tashkent Cartographic Institute)), "Device for Grinding the Edges of Plate Glass". 9) A. A. Vnukov (Tashkentskaya kartograficheskaya fabrika (Tashkent Cartographic Institute)), a) "Mechanism for Inclining the Grinding Case". b)"Mechanism for Lifting the Trough With the Balls". 10) V. I. Yurchenko and S. A. Lonshteyn (Tashkentskaya kartograficheskaya fabrika (Tashkent Cartographic Institute)), "Automatic Switch-off of

Results of the Competition for the Best Improving Suggestion

Arc Lamps". 11) I. V. Vasil'yeva (Tashkentskaya kartograficheskaya fabrika (Tashkent Cartographic Plant), "Increase in the Durability of Light-sensitive Rubber Solution (Adhesive)". 12) V. M. Sher (Kiyevskaya kartograficheskaya fabrika (Kiyev Cartographic Plant), "Correspondence of the Stroke-elements on Topographic Maps With the Letters on the Machine Printing Forms". 13) V. V. Bozrikov, S. F. Yakunin (Rizhskaya kartograficheskaya fabrika (Riga Cartographic Plant), "On the Improvement in the Construction of Mechanisms for Pressing-on the Inking Rollers and Friction Drums on the Offset Machines 'Planeta-Super-Kvinta'". 14) A. Ya. Simanovskiy (Rizhskaya kartograficheskaya fabrika (Riga Cartographic Plant), "A Rational Method of Making Positives of Printing Forms of Relief Printing on Tracing Paper for Printing Books on Offset Machines". 15) O. M. Yankovskiy (Rizhskaya kartograficheskaya fabrika (Riga Cartographic Plant), "Synchronization and Automatization of the Switching on and off of Arc Lamps and of the Suction Fan in the Copying Department". 16) V. F. Alampiyev (Rizhskaya kartograficheskaya fabrika (Riga Cartographic Plant), "Variation in the Technology of Making Sets of Outline Maps of the Fifth Class"

17) V. V. Il'yushin (Rizhskaya kartograficheskaya fabrika (Riga Cartographic Plant), "Preparation of Collecting- and Corresponding Positives by the Method of the Washed-out Relief on 'viniproz'". 18) V. M. Dudochkin (Tbilisskaya kartograficheskaya fabrika (Tbilisi Cartographic Plant), "Switching off the Motor of the Compressor on the Copying Frame by Means of the Change Lever for Lifting the Glass and by Means of the Vacuum". 19) D. I. Matkava (Tbilisskaya kartograficheskaya fabrika (Tbilisi Cartographic Plant), "Device for Laying on the Negatives in Copying". 20) N. M. Serbin (Tbilisskaya kartograficheskaya fabrika (Tbilisi Cartographic Plant), "Device for Drying Paper on Offset Machines". 21) S. M. Konstantinova (Tbilisskaya kartograficheskaya fabrika (Tbilisi Cartographic Plant), "Progressive Method and Procedure for the Preparatory Work in Calculating and Plotting the Geographic Network on Maps to Be Compiled". 22) K. I. Mironov (NRKCh) "A Workbench for Repairing the Guides of the Offset Machine". 23) Yu. P. Tarasov (NRKCh) "Device for Regulating the "taler" of the Offset Machine". 24) Ye. N. Klyuchanskaya and S. V. Nesterova (NRKCh) "Improving the Method of Precipitating the Silver Nitrate in Used Solutions".

GALITSKIY, Yu.P.; CHUYKO, N.M.; GASIK, M.I.; YEMLIN, B.I.; PEREVYAZKO, A.T.; BOGDANCHENKO, A.G.; MALIKOV, G.P.

Using a thermoelectric silicometer in the making of transformer steel. Stal' 23 no. 3:231-232 Mr '64. (MIRA 17:5)

1. Dnepropetrovskiy metallurgicheskiy institut i zavod "Dneprospetsstal'".

CHUYKO, N.M.; GALITSKIY, Yu.P.; PEREVYAZKO, L.T.

Effect of the content of nonmetallic inclusions and oxygen on the electric engineering properties of cold rolled transformed sheet. Stal' 24 no.10:918-921 O '64. (MIRA 17:12)

CHUYKO, N.M.; GRECHNYY, Ya.V.; GALITSKIY, Yu.P.; SHMYREV, I.P.; VOROB'YEV, G.M.

Annealing of transformer steel in high vacuum and at high temperatures. Izv. vys. ucheb. zav.; chern. met. 7 no.10: 49-54 '64. (MIRA 17:11)

1. Dnepropetrovskiy metallurgicheskiy institut.

CHUYKO, N.M.; PEREVYAZKO, A.T.; GALITSKIY, Yu.F.

Gas removal from a stream of transformer steel during decantation under vacuum. Nauch. trudy DMI no.51:17-29 '63.

(MIRA 17:10)

CHUYKO, N.M.; GALITSKIY, Yu.P.; RUTKOVSKIY, V.B.; SAMOYLENKO, E.D.; SENCHILOV, E.S.

Gases in acid electric steel. Nauch. trudy DMI no.51:64-76 '63. (MIRA 17:10)

1. Dnepropetrovskiy metallurgicheskiy institut i Dneprodzerzhinskiy vagonostroitel'nyy zavod imeni gazety "Pravda".

GALITSKIY, Ya...; CHUYKO, N.M.; [illegible], A.F.; [illegible], Ya.I.; [illegible], G.L.

Changes in the nitrogen content of metal during smelting and its effect on the properties of a transformer sheet. Stal' 25 no.3:257-261 Mr '65. (MIRA 18:4)

1. Dnepropetrovskiy metallurgicheskiy institut i zavod "Dneprospetsstal'".

GALITSKIĬ, YU. V.

Primernyi chislovoi raschet lodki gidrosamoleta. (TSAGI. Trudy, 1940, no. 488)
Title tr.: Numerical example of seaplane hull design.

NCF

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

SHEYNIN, Viktor Mikhaylovich; [illegible], kand. tekhn.nauk, retsenzent; GALITSKIY, Yu.V., inzh., retsenzent; GINEVSKIY, A.S., kand. tekhn. nauk, red.; MOROZOVA, P.B., red.izd-va; ORESHKINA, V.I., tekhn. red.

[Weight and transportation efficiency of passenger planes] Vesovaia i transportnaia effektivnost' passazhirskikh samoletov. Moskva, Oborongiz, 1962. 196 p. (MIRA 16:10)
(Airplanes)

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